

WHAT IS CLAIMED IS:

Sub A 1. A parts ordering system having a first domain, a second domain and a third domain connected in a tree structure, wherein said second domain includes:

5 expanding means for expanding, into its component parts, an order that has been received from the first domain; and

 communication means for communicating, to the third domain, the order for each component part expanded by said
10 expanding means.

Sub 1 2. The system according to claim 1, wherein said first domain, second domain and third domain have means for issuing an order, means for receiving an order, means for devising a machining plan based upon the order received, means for
15 performing expansion, into each component part, in accordance with the machining plan, means for devising an ordering plan for a part that has been expanded into its component parts, means for ordering a part expanded into individual parts units based upon the ordering plan, means
20 for reading data from a database in accordance with the order for the part, and means for writing the read data to the database;

 wherein a plurality of connections are made possible on a network in a tree structure.

25 3. The system according to claim 2, wherein said means for receiving an order has means for making a comparison with

data, which has been retained in a database, to determine whether an order is a new order, a modified order or re-transmission of the same order.

4. The system according to claim 2, wherein said means for devising a machining plan has means for comparing a designated delivery date of a received order and planned production date retained in a database, and means for scheduling an expected production date based upon results of the comparison.

5. The system according to claim 2, wherein said means for performing expansion into each component part has means for performing expansion in units of individual parts constructing a manufactured product based upon a received order, and means for calculating the number of parts.

6. The system according to claim 2, wherein said means for devising an ordering plan has means for comparing a number of parts contained in inventory and a number of parts required, and means for calculating minimum units of an order based upon results of the comparison.

7. The system according to claim 1, wherein said first domain, which corresponds to an ordering starting point, has means for issuing an order in accordance with an order input, and said third domain, which corresponds to an ordering end point, has means for receiving an order in response to the issuance of the order.

8. The system according to claim 1, wherein said first,

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second and third domains are connected in a nodeless tree structure, and an order for each component part processed by said first domain is communicated to the third domain without processing being duplicated by the expanding means
5 of said second domain.

9. A parts ordering system in which a domain on a first network and a domain on a second network are connected via a public line, wherein the domain on said second network includes:

means for receiving an order from the domain on said
10 first network;

means for devising a machining plan based upon the order;

means for performing expansion, into each component part, in accordance with the machining plan;

15 means for devising an ordering plan for each expanded component part; and

means for ordering in units of individual parts in accordance with the ordering plan.

10. The system according to claim 9, wherein the domain on
20 a third network connected to the domain on the second network via a LAN receives an order, which is issued by the domain on said first network, via a public line, the domain on said second network and said LAN.

SUB A4
25 11. A parts ordering system having a database which stores a number of specific parts contained in inventory, as well as a first domain, second domain and third domain connected

in a tree structure, wherein said second domain includes:

means for performing expansion, into each component part, based upon an order received from the first domain;

communication means for communicating, to the third domain, orders in individual parts units expanded by said
5 expanding means; and

stopping means for comparing the number of specific parts contained in inventory stored in the database and a required number of specific parts obtained by expansion
10 performed by said expanding means, and stopping the communication of an order to the third domain in a case where the number of specific parts contained in inventory is greater, by a prescribed number, than the required number of specific parts.

12. A parts ordering system in which a first domain is
15 internally provided with a database in which a number of specific parts contained in inventory has been stored, wherein said first domain includes:

means for performing expansion, into each component
20 part, based upon an order received from the second domain;

communication means for communicating, to the third domain, orders in individual parts units expanded by said expanding means; and

stopping means for comparing the number of specific
25 parts contained in inventory stored in the database within the first domain and a required number of specific parts

obtained by expansion performed by said expanding means, and
stopping the communication of an order to the third domain
in a case where the number of specific parts contained in
inventory is greater, by a prescribed number, than the
5 required number of specific parts.

13. A parts ordering system having a first domain and a second
domain connected in a tree structure, wherein said second
domain includes:

expanding means for performing expansion, into each
10 component part, based upon an order received from the first
domain; and

first control means which controls reference
permission for referring, from an operating terminal
connected to said second domain, to status of order
15 receiving/issuance in individual parts units expanded by
said expanding means.

14. The system according to claim 13, wherein said first
control means permits reference to order data, machining plan
data and sub-part inventory data of said first domain upon
20 limiting this data to that required by said second domain.

Sub D 15. The system according to claim 14, wherein said first
control means gives reference permission based upon a
combination of a domain number and password.

SUBAS 16. A parts ordering system having a first domain and a second
25 domain connected in a tree structure, wherein said second
domain includes:

expanding means for expanding, into component parts,
an order that has been received from the first domain;

first control means which controls permission to refer
to an order for a component part expanded by said expanding
5 means, reference being made from an operating terminal
connected to the second domain, and second control means for
controlling permission to refer to ordering information,
within the first domain, related to an order issued to the
second domain.

10 17. The system according to claim 16, wherein the system
is constituted by a single domain having order issuing means,
order receiving means, machining planning means,
constructional expansion means, ordering planning means and
ordering means, an interface for making possible
15 interconnection of domains in a tree structure, and input
means for inputting, to a database, information relating to
a part delivered in accordance with the order.

18. A parts ordering system comprising a server, a client,
an operating system, a central processing unit, a storage
20 device, an input unit, and output unit and a resident process
program.

19. The system according to claim 18, wherein said storage
device is a database.

20. A parts ordering system in which a domain is connected
25 to a first network and a second network, said system
having means for communicating information between said

first network and said second network selectively depending upon importance of secrecy of the information.

SUBA 21. A parts ordering method whereby a first domain, a second domain and a third domain connected in a tree structure
5 deliver and receive orders, comprising:

an expanding step at which the second domain expands, into its component parts, an order that has been received from the first domain; and

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10 a communication step at which the second domain communicates, to the third domain, an order for each component part expanded at the expanding step.

22. A parts ordering method whereby a first domain, a second domain and a third domain connected in a tree structure deliver and receive orders via a database which stores a
15 number of specific parts contained in inventory, comprising:

an expanding step at which the second domain performs expansion, into each component part, based upon an order received from the first domain;

20 a communication step at which the second domain communicates, to the third domain, orders in individual parts units expanded at the expanding step; and

a stopping step at which the second domain compares the number of specific parts contained in inventory stored in the database and a required number of specific parts obtained
25 by expansion performed at the expanding step, and stops the communication of an order to the third domain in a case where

the number of specific parts contained in inventory is greater, by a prescribed number, than the required number of specific parts.

23. A parts ordering method whereby a first domain, which
 5 is internally provided with a database in which a number of specific parts contained in inventory has been stored, accepts an order from a second domain and communicates the order to a third domain, comprising:

an expanding step at which the first domain performs
 10 expansion, into each component part, based upon an order received from the second domain;

a communication step at which the first domain communicates, to the third domain, orders in individual parts units expanded at the expanding step; and

15 a stopping step at which the first domain compares the number of specific parts contained in inventory stored in the database within the first domain and a required number of specific parts obtained by expansion performed at the expanding step, and stops the communication of an order to
 20 the third domain in a case where the number of specific parts contained in inventory is greater, by a prescribed number, than the required number of specific parts.

24. A parts management system having a database which stores
 25 a number of specific parts contained in inventory, as well as a first domain, a second domain and a third domain connected in a tree structure, wherein said second domain

includes:

means for performing expansion, into each component part, based upon an order received from the first domain; and

5 communication means for communicating, to the third domain, orders in individual parts units expanded by said expanding means;

said second domain having input means for inputting, to the database, information relating to a part delivered
10 in accordance with an order.

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25. The system according to claim 24, wherein the system is constituted by a single domain having order issuing means, order receiving means, machining planning means, constructional expansion means, ordering planning means and
15 ordering means, an interface for making possible interconnection of domains in a tree structure, and input means for inputting, to a database, information relating to a part delivered in accordance with the order.

26. A parts management system comprising a server, a client,
20 an operating system, a central processing unit, a storage device, an input unit, and output unit and a resident process program.

27. The system according to claim 26, wherein said storage device is a database.

25 28. A parts management system in which a domain is connected to a first network and a second network, said system

having means for communicating information between said first network and said second network selectively depending upon importance of secrecy of the information.

29. A computer readable recording medium on which has been
5 recorded a program by which the following means are implemented by a computer:

means for issuing an order;

means for receiving an order;

10 means for devising a machining plan based upon the order received;

means for performing expansion, into each component part, in accordance with the machining plan;

means for devising an ordering plan for a part that has been expanded into its component parts;

15 means for ordering a part expanded into individual parts units based upon the ordering plan;

means for reading data from a database in accordance with the order for the part; and

means for writing the read data to the database.

20 30. An order-receiving/issuing management apparatus for managing receipt of an order in which a local domain receives an order from a first domain, and issuance of an order in which the local domain issues an order to a second domain, comprising:

25 display means for displaying data; and

display control means for displaying, in combination

on said display means, an icon for identifying receipt of an order or issuance of an order, and data indicating results of receipt of an order or issuance of an order represented by the icon.

5 31. The apparatus according to claim 30, wherein said data is the number of processed issued/received orders corresponding to said icon.

32. The apparatus according to claim 30, wherein said icon displays one or a combination of a plurality of "expected",
10 "orders determined", "delayed", "divided orders", "orders modified", inspection in progress" and "acceptance".

33. An order-receiving/issuing management method for managing receipt of an order in which a local domain receives an order from a first domain, and issuance of an order in
15 which the local domain issues an order to a second domain, comprising:

a display step of displaying data; and

a display control step of outputting, in combination to said display step, an icon for identifying receipt of an
20 order or issuance of an order, and data indicating results of receipt of an order or issuance of an order represented by said icon.

34. A computer readable recording medium on which has been recorded a program by which the following steps are
25 implemented by a computer:

a display step of displaying data; and

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a display control step of outputting, in combination
to said display step, an icon for identifying receipt of an
order or issuance of an order, and data indicating results
of receipt of an order or issuance of an order represented
5 by said icon.

35. The apparatus according to claim 30, wherein said display
control means displays receipt of an order, a machining plan,
constructional expansion, an ordering plan and detailed
information of an order on the display means based upon a
10 command from input means.

36. The method according to claim 33, wherein said display
control step displays receipt of an order, a machining plan,
constructional expansion, an ordering plan and detailed
information of an order at said display step based upon a
15 command from an input step.